

HEATED INFLATABLE AIR BED

Background of The Invention

The invention relates to inflatable air beds. More specifically, it refers to an air bed having a vinyl layer enclosing an inflatable air space and a heated blanket sealed together along exterior edges.

Mattresses containing a heating unit are well known as shown in Reissue 22,763; U.S. 2,606,996; 4,162,393; 4,388,738; 4,423,308; 5,787,525 and 5,881,410. The heating of a mattress is a desirable condition, particularly in cold climates. For this reason, many popular heated mattress designs have been developed. Vinyl layers typically employed over inflatable air mattresses are difficult to heat and improved ways to achieve such heating is sought.

Summary of The Invention

A way of inexpensively heating an air mattress is created by this invention. A blanket containing an electrical heating element has a vinyl strip attached to its peripheral edges and such edges are heat welded to a top vinyl layer of an air bed. The peripheral edges of the top vinyl layer, a side vinyl layer and bottom vinyl layer are all heat welded together to form the air mattress. Support coils are mounted between the top and bottom vinyl layers. A fixture for receipt and expulsion of air is located on the side vinyl layer and an electrical conduit is connected to the electrical heating element in the

blanket.

Brief Description of The Drawings

The invention can be best understood by those having ordinary skill in the art by reference to the following detailed description when considered in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of the heated air mattress of this invention.

FIG. 2 is a magnified view of the air intake fixture and the electric conduit serving the heated blanket within the air mattress.

FIG. 3 is a partially sectioned view of the air mattress showing the internal elements.

FIG. 4 is an elevational sectional view of the air mattress along lines 4-4 of FIG. 1.

FIG. 5 is a perspective view of an alternate heated air mattress.

FIG. 6 is an elevational sectional view along lines 6-6 of FIG. 5.

Detailed Description

Throughout the following detailed description, the same reference numerals refer to the same elements in all figures.

Referring to FIGS. 1-4, the heated inflatable air bed or mattress 10 has a top vinyl layer 12, a bottom vinyl layer 14 and a side gusset vinyl layer 16. As seen in FIGS. 3 and 4, a

heated blanket 18 having a heating element 20 within blanket 18 is attached by stitching along a peripheral edge 22, to a vinyl strip 24. The blanket can be made from wool, cotton or synthetic fiber. The blanket 18 is juxtaposed to top vinyl layer 12 by heat welding 26 the vinyl strip 24 to the top vinyl layer 12 as seen in FIG. 4. The top vinyl layer 12 is heat welded 28 along its peripheral edge 32 to a top edge 30 of the gusset 16. The bottom vinyl layer 14 is heat welded along its peripheral edge 36 to a bottom edge 38 of the gusset 16. A vinyl flock 40 covers the blanket 18. The flock 40 is heat welded 42, 44 to the top vinyl layer 12.

Multiple coils 46 having vinyl vertical supports or pillars 48 are distributed between the top vinyl layer 12 and bottom vinyl layer 14 to provide support to the inflated air bed.

Inflation of the air bed is accomplished by hand pumping or with a battery powered blower 72 through fixture 50 as seen in FIG. 2. The heating elements 20 in blanket 18 are attached to an electrical conduit 52 which is attached to an electric current source via a rheostat 54. Air can be released from air bed 10 by opening a plug in fixture 50. As air enters fixture 50, the air chamber 56 enclosed by the top, bottom and side vinyl layers inflates.

As seen in FIGS. 5 and 6, a second air bed 58 having a top vinyl layer 60, a bottom vinyl layer 62 and a side gusset layer

64 can be attached to air bag 10 by a weld 66 between bottom vinyl layer 14 and top vinyl layer 60 of air bed 58. The second air bed 58 has a separate air intake/outflow fixture 68 for filling its air chamber 70. In like manner to bed 10, the top layer 60 and top edge of side layer 64 are welded together at 72 and the bottom layer 62 is welded 74 to the bottom edge side 64.

Other functionally equivalent elements can be substituted for the elements disclosed herein to produce substantially the same results in substantially the same way.